

A REDUCED-OVERHEAD PROTOCOL FOR DISCOVERING NEW NEIGHBOR NODES AND DETECTING THE LOSS OF EXISTING NEIGHBOR NODES IN A NETWORK

Abstract

5 A protocol for discovering a new neighbor node and detecting the loss of an existing
neighbor node in a network is described. A node receives a neighbor discovery message from a
neighbor node. The node receiving the neighbor discovery message periodically transmits a
predetermined number of neighbor discovery messages in response to the received neighbor
discovery message. Each neighbor discovery message includes an identity of the neighbor node.
10 After transmitting the predetermined number of neighbor discovery messages, the node transmits
neighbor discovery messages that omit the identity of the neighbor node until another neighbor
discovery message is received from the neighbor node that indicates a change in a
communications state associated with the neighbor node.

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